

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-10 (Cancelled)

11. (Currently Amended) A transmission system comprising:

a signal source for generating signals having frequency components in a selected frequency range, the signal source having a complex internal resistance;

a signal transmission line having a first end connected to the signal source;

a complex terminating resistance connected to a second end of the signal transmission line;

wherein at least one of the internal resistance and terminating resistance is selected to reduce frequency-dependent signal attenuation in the selected frequency range, wherein the selected frequency range includes frequencies below 40 kHz.

12. (Canceled)

13. (Previously Presented) The transmission system of claim 11, wherein at least one of the internal resistance and terminating resistance comprises a real resistance in series with an inductance.

15. (Previously Presented) The transmission system of claim 11, wherein at least one of the internal resistance and the terminating resistance is selected independently of a bandwidth of the signal transmission line.

16. (Previously Presented) The transmission system of claim 11, wherein at least one of the internal resistance and the terminating resistance is selected independently of a symbol transmission rate of the transmission system.

17. (Previously Presented) The transmission system of claim 11, wherein at least one of the internal resistance and the terminating resistance is selected on the basis of a bandwidth of the signal transmission line.

18. (Previously Presented) The transmission system of claim 11, wherein at least one of the internal resistance and the terminating resistance is selected on the basis of a symbol transmission rate of the transmission system.

19. (Previously Presented) The transmission system of claim 11, further comprising a first transformer disposed to couple the signal source to the transmission line and a second transformer disposed to couple the transmission line to the terminating resistance.

20. (Previously Presented) An ISDN transmission system comprising a data transmission system as recited in claim 11.

21. (Previously Presented) The ISDN transmission system of claim 11, wherein at least one of the internal resistance and terminating resistance has a real resistance of 135 ohms and an inductance of 2.7 millihenries.

22. (Previously Presented) The transmission system of claim 11, wherein the signal transmission line comprises an ISDN transmission line having a length between 6 and 7 kilometers.

23. (New) The transmission system of claim 11, wherein at least one of the internal resistance and terminating resistance comprises a series circuit comprising a real resistance and a parallel circuit comprising an inductance and a capacitance.